

WHAT IS CLAIMED IS:

1. A parallax barrier comprising a plurality of substantially opaque regions defining a plurality of groups of parallel slits, each said group comprising N of said slits where N is an integer greater than one, said slits of each said group being spaced apart with a first pitch $b1$ in a direction perpendicular to said slits and said groups being spaced apart with a second pitch $b2$, in said direction perpendicular to said slits, greater than $N.b1$.
2. A barrier as claimed in claim 1, in which said slits of each said group have substantially a same maximum light transmission.
3. A barrier as claimed in claim 1, in which each of said substantially opaque regions has a finite width.
4. A barrier as claimed in claim 1, in which said second pitch $b2$ is substantially equal to $2.N.b1$.
5. A barrier as claimed in claim 1, in which N is equal to 2.
6. A barrier as claimed in claim 1, in which N is equal to 3.
7. A barrier as claimed in claim 1, comprising an active device having first and second modes of operation, said active device providing said group of said slits in said first mode of operation and providing an alternative slit arrangement in said second mode.
8. A barrier as claimed in claim 7, in which said alternative slit arrangement comprises a plurality of parallel slits spaced apart with a substantially uniform pitch in said direction perpendicular to said slits.

9. A barrier as claimed in claim 7, in which said active device has an operating area and has a third mode of operation in which said active device is substantially uniformly transmissive to light throughout said operating area.

10. A multiple view display comprising a spatial light modulator and a parallax barrier comprising a plurality of substantially opaque regions of defining a plurality of groups of parallel slits, each said group comprising N of said slits where N is an integer greater than one, said slits of each said group being spaced apart with a first pitch $b1$ in a direction perpendicular to said slits and said groups being spaced apart with a second pitch $b2$, in said direction perpendicular to said slits, greater than $N.b1$.

11. A display as claimed in claim 10, in which said modulator comprises a plurality of columns of pixels extending parallel to said slits.

12. A display as claimed in claim 11, in which said columns have a third pitch p , in a direction perpendicular to longitudinal directions of said columns, which differs from said first pitch so as to provide viewpoint correction.

13. A display as claimed in claim 12, in which said first pitch $b1$ is given by:

$$b1 = \frac{p}{1 \pm \frac{p}{e}}$$

where p is said pitch of said columns and e is a pitch of primary viewing windows produced by said display.

14. A display as claimed in claim 11, in which said columns have a third pitch p , in a direction perpendicular to longitudinal directions of said columns, which is greater than said first pitch.

15. A display as claimed in claim 11, in which said columns comprise red, green and blue columns.

16. A display as claimed in claim 15, in which N is equal to 2.

17. A display as claimed in claim 16, in which said columns are arranged as repeating groups with each said group arranged in an order blue, red, blue, red, green, blue, green, blue, red, green, red, green.

18. A display as claimed in claim 16, in which said columns are arranged as repeating groups with each said group arranged in the order green, green, blue, blue, red, red.

19. A display as claimed in claim 15, in which N is equal to 3.

20. A display as claimed in claim 19, in which said columns are arranged as repeating groups of 18 with each said group comprising three consecutive pairs of identical triplets and with colours of said triplets of said consecutive pairs being rolled by one position with respect to each other.

21. A display as claimed in claim 19, in which said columns are arranged as repeating groups of 36 with each said group comprising six consecutive pairs of identical triplets, said triplets of said consecutive pairs having orders comprising all permutations of red, green and blue.

22. A display as claimed in claim 10, comprising a display driver for supplying image signals representing a plurality of views as interlaced columns to said modulator.

23. A display as claimed in claim 22, in which said image signals represent two views.

24. A display as claimed in claim 22, comprising an autostereoscopic display in which said image signals represent at least one pair of stereoscopic views.